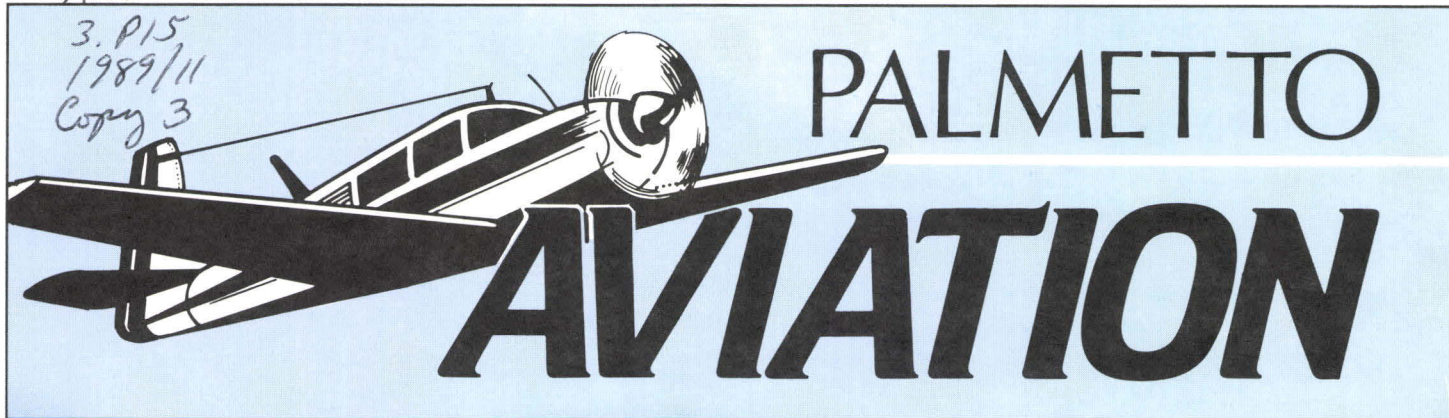


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Volume 41, Number 11

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November, 1989

Damaged SC Airports Get Priority Funding

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STATE DOCUMENTS

No New Airport Projects Accepted until after January 1, 1990

Due to the enormous impact Hurricane Hugo had on South Carolina's economy, the South Carolina Aeronautics Commission members have voted not to accept any new airport improvement project applications until after January 1, 1990, unless it deals with a safety problem.

In their most recent commission meeting, commissioners discussed the impact of Hurricane Hugo on the state, not only on airports, but on the amount of state, federal and local monies that will be needed for aviation projects.

"Not knowing what funds are available is the biggest issue and the one which is most vital to the aviation industry as a whole," said John Hamilton, director of the state Aeronautics Commission.

"At this point we are concerned that not enough money will be on hand for those South Carolina airports which were severely damaged by Hugo, but at the same time we understand the economic importance of every airport improvement project in the state," said Hamilton after the announcement.

"We are currently assessing

Airports need to call our 800 number (1-800-922-0574) for any refurbishing project, even though we may not be supplying the funding...

damages," said Director Hamilton, "and from a safety standpoint we have some airports which will need help immediately, and others which just need a little fixing up."

"What concerns us the most is how much damage was done and where the money is coming from in the future for these damages. Is it from the legislature or the FAA? I don't know," said Hamilton. "Either way, it's best to stand back and look over the situation very carefully before we go on and tackle whole new projects. We need to get our airports back in shape as they were before Hugo. Then we can start new projects."

Assuring airport safety with existing airports is also another reason for the delay of new project applications, according to Hamilton.

"Airports need to call our 800

number (1-800-922-0574) for any refurbishing project or destruction, even though the Aeronautics Commission may not be supplying the funding; we'll be able to help," he said.

"Now is the time to tell us, so we can help...So far very few airports have called us to request funding and I know some airports need money," he added.

See Damaged Airports, Page 5

SC Airports Conference Is this month

The '89 Airports Conference is slated for November 14-17 at the Radisson Resort in Myrtle Beach. The all-suite hotel offers fully-equipped kitchens so that you and your family will have plenty of room in-between conference sessions to relax and unwind.

Look for a full schedule in this issue of Palmetto Aviation.

See '89 Conference, Page 6



PALMETTO AVIATION is an official publication of the South Carolina Aeronautics Commission. It is designed to inform members of the aviation community, and others interested in aviation, of local developments in aviation and aviation facilities, and to keep readers abreast of national and international trends in aviation.

The Aeronautics Commission is a state agency created in 1935 by the South Carolina General Assembly to foster and promote air commerce in the state.

Carroll A. Campbell
Governor

Commissioners:

Jim Hamilton, Chairman
Columbia

Rep. Olin R. Phillips, Vice Chairman
Gaffney

Edwin S. Pearlstine, Jr.,
Charleston

Dr. Crack Anderson
Chester

Curtis Graves
Denmark

Richard McClellion
Anderson

Ralph Schmidt
Greenville

Charles Appleby
Florence

Ex-Officio Members:

Sen. Isadore Lourie
Columbia

Staff:

John W. Hamilton
Director

Helen F. Munnerlyn
Editor

New Aeronautics Commissioners Appointed

The Aeronautics Commission is pleased to announce the appointment of Ralph Schmidt and Dr. Crack Anderson as commissioners for the 4th and 5th Districts.

Schmidt, a businessman from Greenville, replaces Wallace A. Mullinax of the 4th District, while Dr. Crack Anderson assumes the duties left by Gene Rachels.

"I was first appointed by Gov. West and served under four governors," said Schmidt. "I've seen many changes and improvements in the Commission since I was here four years ago," he said.

"I'd like to especially compliment the commission for what they have done to airports in the Upstate... Just in the Upstate it's evident of the tremendous improvements that have been made," he said.

Commissioner Mullinax said farewell at the last Greenville meeting, "On behalf of the citizens of the 4th district of South Carolina, I would like to thank the commissioners for their support in making improvements to airports in our district. Spartanburg Downtown, Greenville-Spartanburg, Greenville Downtown, Donaldson — they all have been recipients of funds and also, I would like to welcome Commissioner-elect Ralph Schmidt to the commission. I hope that the



Commissioner Rachels, (l) says good-bye to Chairman Jim Hamilton at their last meeting.

commissioners will give him the same cooperation they have given me. I thank you and on behalf of the citizens, I thank you."

Gene Rachels served his last commission meeting in October and is being replaced by Dr. Crack Anderson, a Chester, S.C. veterinarian. "It was wonderful to serve on the board of the Aeronautics Commission and to work with the fine people down there," said Rachels, who owns a car dealership in Chester.

"I feel very comfortable with being replaced by Dr. Crack Anderson, having been a pilot himself and also on the commission before. You know, I replaced him and now he's replacing me," Rachels said.



Commissioner Mullinax congratulates newly appointed Commissioner Ralph Schmidt who will represent the 4th District.

South Carolina Aeronautics Commission Offices are at Columbia Metropolitan Airport. Mailing Address: Post Office Drawer 280068, Columbia, South Carolina, 29228. Phone: (803) 739-5400.

Carroll McDuffie, Officer of EAA Chapter 242, Rites Held

Carroll Colin McDuffie, 60, the Experimental Aircraft Association's Chapter 242 vice president died Wednesday, September 20, 1989.

The Columbia resident was a 1952 graduate of the University of South Carolina and was employed by the S.C. Division of Motor Vehicle management. He was a Korean conflict Marine Corps veteran and a member of Northeast Presbyterian Church.

He was affectionately known as "Crash" McDuffie by members of the EAA Chapter 242 in Columbia.

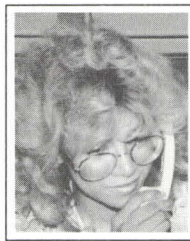
Surviving are his widow, Mrs. Jean Anderson McDuffie; sons, John D., and Ken C. McDuffie; a brother, Duncan M. McDuffie and a sister, Annie Bush.

SCAC Staff Additions

The next time you come to the Aeronautics Commission you will probably see two new faces, Cassandra Baker, our new receptionist, and Bill Plunkett, our new pilot.

Plunkett comes to the SCAC by way of the U.S. Army and the Coast Guard. While in the Army, he was based in Washington, Alabama and Columbia among other places. It was while in Columbia, Plunkett and his wife of 15 years decided South Carolina was where they wanted to live. It was during his time in the Coast Guard, stationed in Alaska, that he realized the real reason he wanted to live in Columbia.

"There are four seasons in South Carolina and each lasts three months. It's just not like that in Alaska," Plunkett said.



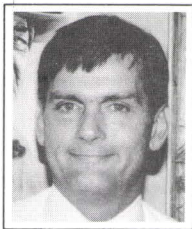
Baker

Plunkett first became interested in the SCAC in 1983 when he was flying from Alaska to North Carolina and had mechanical problems with the helicopter near Columbia. He landed at the commission and the staff helped him repair the copter so he could continue his trip. So when it was time to look for another job in aviation he started with the SCAC.

Plunkett looks forward to working at the SCAC for several reasons. The biggest reason is.... "I'll be home a lot," he said.

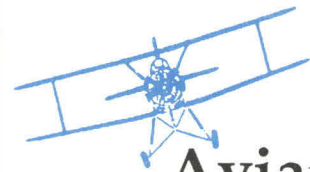
SCAC also has added a new receptionist to the staff, Cassandra Baker.

Baker comes to the commission after spending time all over the world. Her father, a retired U.S. Army medic, lived in Hawaii, Oklahoma, many place across the U.S.



Plunkett

Wayne Corley, a former SCAC airport engineer, accepts a plaque from Chairman Jim Hamilton for outstanding service to the SC Aeronautics Commision.



Aviation Calendar

November 12

Breakfast Club
East Cooper Airport

November 14-18

SC Airport Conference
Kingston Plantation
Radisson Resort Hotel
Myrtle Beach, S.C.

For Hotel Reservations:

(803) 449-0006

For Conference Registration:

(803) 739-5400

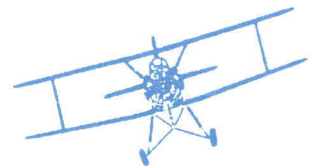
1-800-922-0574

November 26

Breakfast Club
Hartsville Municipal

December 10

Breakfast Club
Clarendon County
Airport



and in Germany. She graduated from Spring Valley High School in 1978 and attended Midlands Tech here in Columbia and Southeastern Academy in Orlando, Florida, where she became a cabin attendant for Eastern Airlines, but due to the problems Eastern suffered, Baker opted not to work for them.

Baker who speaks German and Spanish, enjoys Tennis and Football, especially the Clemson Tigers, "Those are my boys," she says. She looks forward to working at the SCAC for many reasons, but most of all she enjoys the people she gets to meet.

ROCKY MOUNTAIN HELICOPTERS

Settles at Donaldson

An aviation industry destined to be one of the busiest in the state has officially opened at Donaldson Center Airport.

Under rhythmic rain, Gov. Carroll Campbell officially welcomed Rocky Mountain, a Utah-based helicopter company as the newest growth-industry in the upstate.

"The announcement of Rocky Mountain to Donaldson Center is a positive direction and indicates the progress of South Carolina and the health of the upstate," said Gov. Campbell.

"Some people believed that when Donaldson Center was closed it was a beginning; an opportunity to move in a forward direction," he added. "With this new industry, Donaldson is a testament to what South Carolinians can do when they work together."

After his remarks, Campbell presented Rocky Mountain Vice President Russ Spray with a plaque from the Greenville Chamber of Commerce.

With this announcement, Rocky Mountain Helicopters officially moved its headquarters to Donaldson. Spray said the company will use Donaldson as a maintenance facility for its medical fleet, and to modify the interiors of aircraft for air ambulance use.

"In 1972, Rocky Mountain began moving people over the moun-



Russ Spray, Vice President of Rocky Mountain Helicopters holds a plaque presented by Governor Campbell.

tains for medical and hospital care," he said, "Since that time we have transported from 400 to 500 patients to hospitals."

"Now most of our business is on the Eastern Seaboard," said the company's vice president, "And we're quite impressed with the Greenville area."

Rocky Mountain is said to be the leading aeromedical health-care company and largest supplier of medical helicopters in the world.

Spray also said during the presentation, "We chose Donaldson because it is in a very dynamic growth area and is geographically centered on the Eastern Seaboard....One of the biggest selling factors for Greenville was its

people, especially members of the Donaldson development Commission the Greenville County Council."

"Rocky Mountain Helicopter's decision to base its Southeast regional operations at Donaldson Center is another good example of the industrial park's viability to companies that depend upon easy access for aviation purposes," said Greenville Chamber chairman Currie Spivey.

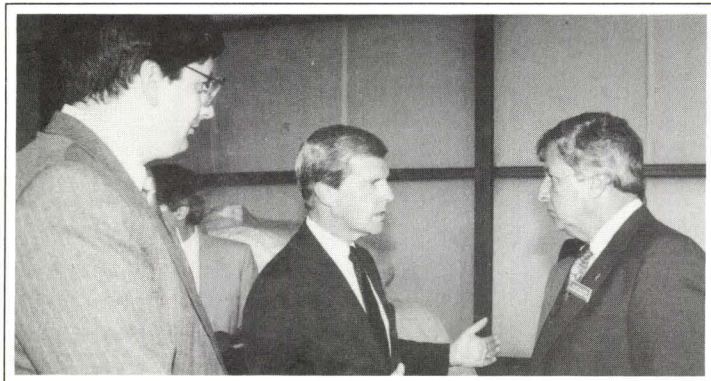
"On behalf of the Donaldson Development Commission, I wish to express our pleasure in having Rocky Mountain Helicopters here at Donaldson," said David Train, the chairman of the Donaldson Development Commission. "They bring a nationwide reputation of excellence."

Spray said the FBO will employ about 10 people and then up to a staff 15 including support personnel. It will have an aircraft maintenance hangar, 15 T-hangars and a storage hangar.

The FBO also has plans to improve the airport in general with a 24-hour weather observation system, and perhaps a manned air traffic control tower. These improvements may very well lure a major air cargo company into Donaldson which is the aspiration of airport officials.

Rocky Mountain, which has a fleet of 122 aircraft, will operate as FBO at Donaldson. The FBO has contracted with Donaldson to run its airport facilities, which serve Michelin, 3M Corporation, Lockheed and Procter and Gamble, just to name a few.

The company's site in Greenville will serve as their Southeast district office and main support center for maintenance. Initially the company will utilize two 10,300-square foot buildings.



Gov. Carroll Campbell makes a point as John Ferguson (l) and Allen Englesby (r) look on.

Hurricane Hugo Damage Assessment SC Public Airports

The following represents those airports which sustained damage from Hurricane Hugo on September 21, 1989. Damage to some airports has not been determined due to communications problems. In addition, a monetary estimate of damages has not been determined in some cases.

Berkeley-Moncks Corner Airport—Maintenance hangar destroyed; old T-hangar destroyed; NDB broken; wind-sock frame bent; five aircraft in hangars destroyed; 8 aircraft on ground destroyed.

Calhoun—no airports damaged

Charleston—Charleston International—severe roof damage to terminal as well as interior water damage approximately \$5 million in terminal damage; 2 storage hangars destroyed; rotating beacon and tower damage.

Charleston Executive—10 T-hangars destroyed; 2 small individual hangars destroyed; one medium size hangar substantial damage and 2 medium hangars totally destroyed; large corporate hangar moderate damage (no skin left, 2 doors damaged); 3 aircraft destroyed (1 twin and 2 single engines); 4 aircraft damaged; terminal building—roof damaged, door damaged, extensive water damage; primary windsock and concrete base uprooted; 12 rental cars totalled; 2 private cars totalled; minor damage to fuel farm.

East Cooper—T-hangar destroyed; aircraft damaged, roof damage and trimming off maintenance/administration building.

Chester—Chester Municipal—no damage.

Chesterfield—Cheraw Municipal—windsock frame destroyed; side of brick wall on hangar damaged.

Clarendon—Clarendon County Airport—hangar door off; \$50-75k damage to building; side out of t-hangar; aircraft approx. \$30k damage.

Colleton—Walterboro Municipal—shingles off terminal building.

Darlington—Darlington County Airport—4 aircraft damaged; large hangar total loss off of its foundation; radio

tower damaged; shingles off terminal; t-hangars roof damage.

Hartsville Municipal—2 hangar doors destroyed and blown off; 2 aircraft damaged.

Dillon—Dillon County Airport—no damage.

Dorchester—Dorchester County Airport—3 aircraft slightly damaged.

St. George Municipal—2 t-hangars destroyed; maintenance hangar destroyed; three aircraft destroyed; small terminal building structurally damaged.

Fairfield—Fairfield County Airport—no damage

Florence—Florence Regional Airport—roof damage to terminal building; building severely damaged by water; Air Carolina—door damaged; 4 aircraft damaged; Sutton Best—siding off hangar facility, roof severely damaged; ceiling, flooring, carpet, computer equipment damaged; large hangar door destroyed (approx. \$60,000); 30 vehicles damaged.

Lake City Municipal—windsock frame damaged.

Georgetown—Georgetown county Airport—2 storage hangars destroyed; 2 aircraft destroyed; rental car garage destroyed.

Andrews Municipal—2 hangars destroyed.

Horry—Grand Strand Airport—windsock frame destroyed.

Conway—Horry County—fiber glass hangar door blown off maintenance hangar.

Twin City—minor roof damage to t-hangars.

Kershaw—Woodward Field—roof hangar damage approx. \$10-13K; bar VASI broken on both ends.

Lancaster—Lancaster County Air-

port—1 aircraft damaged; skylights blown-out of storage hangars; minor aircraft damage.

Lee-Lee County Airport

Marion—Marion County Airport

Marlboro—Marlboro County Airport—no damage

Orangeburg—Orangeburg Municipal—no damage

Holly Hill Airport—

Richland—Columbia Owens Downtown—no damage

Sumter—Sumter Municipal Airport—large storage hangar collapsed; aircraft destroyed and damaged; 3 airport lighting regulators damaged; minor roof and metal siding damage to terminal building; t-hangar damage (doors blown off); security fencing around storage hangar and storage hangar demolished.

Williamsburg—Williamsburg County Airport—private storage hangar collapsed; state forestry commission lean-to destroyed; 3 aircraft destroyed; shingles missing on terminal building.

Hemingway—Stuckey Airport—Two metal t-hangars damaged; 1 aircraft slightly damaged.

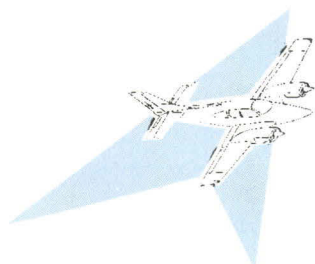
York-Rock Hill Municipal/Bryant Field—all storage hangars damaged, includes 3 storage hangars and 2 t-hangars totalling 30,272 sq. ft.; 20 aircraft/ half totalled; on site electrical system damaged; estimate of damage to hangars \$354,000.

Private Airports Open to the Public:
Huggins Memorial Airport (Timmonsville)

Kirk Air Base (Lancaster)

Branhams Airport (Darlington)

York Airport (York)



Airports Conference is Reaching for New Heights

**Twelfth Annual S.C. Airports Conference
Radisson Resort, Myrtle Beach, SC**

The Twelfth Annual South Carolina Airports Conference is designed for anyone interested in the future of South Carolina's most vital economic resource -- airports.

This year's conference, as in years past, reflects the concerns and problems of the many people involved in aeronautics.

The Twelfth Conference provides informational workshops and seminars on various topics such as consultant selection procedures, airport security, and aviation legal issues. As an industry, we are **Reaching For New Heights** toward an effective means of improving our state's aviation network.

1989 Airports Conference Schedule

Tuesday, November 14

- 2 p.m. - 8 p.m. Exhibits
- 2 p.m. - 6:30 Early Bird Registration
- 6:30 - 8 p.m. Horry County Reception

Wednesday, November 15

Registration Desk Open 8 a.m. - 4 p.m.

- 8 - 7:30 p.m. Exhibits
- 8 a.m. - 9 a.m. Breakfast-sponsored by
Greenville-Spartanburg Jetport
- 9:15 - 11 a.m. Opening Session & Welcome
Preview of Topics
- 11:15 General Session:
A South Carolina Hub: A Dream?
Wayne Sterling, State Dev. Board
- 12:30 Lunch:
Lawrence Burian, President NATA
- 2:15 - 3 p.m. Concurrent Sessions:
1. Airport Managers, FBO's
& Commissioners
2. Insurance Reserve Funds —
What is the Airport's liability?
Responsibility? Availability?
Stuart Hope, Jr, Hope Insurance Co.
- 3:15 - 3:45 p.m. General Session;
Rep. Marion Carnell
Rural Airport Development Act
- 3:45 - 5:15 p.m. General Session:
Aviation Legal Issues
George Kosko, esq.
- 6 p.m. - 7:30 Sponsor's Reception, Exhibits

Thursday, November 16

Exhibits all day

- 7:30 a.m. - 8:30 Breakfast- sponsored by
Columbia Metropolitan Airport
- 8:30 - 9:30 General Session:
Consultant Selection Procedures
- 9:30 - 10:30 General Session:
FAA/State Listening Session —
FAA Update on federal programs
State financial support
- 10:45 - Noon Concurrent Sessions:
1. Airport Security: Part 107 & 109
2. General Aviation/Military
Traffic: Conflicts and Procedures
- Noon - Sporting Events:
Golf Tournament
Harbor cruise & Fishing
- 7:30 p.m. Seafood Bash Extraordinaire

Friday, November 17

exhibits

- 7:30 a.m. - 8:30 Breakfast-sponsored by
Charleston Aviation Authority
- 8:30 - 9 a.m. General Session:
State Pavement Evaluation
Bill Pearson, P.E.
- 9 a.m. - 10 a.m. General Session:
Underground Storage Tanks
- 10 a.m. - 10:45 Concurrent Sessions:
1. FBO Quality Control
2. FAA/Consultants Workshop
- 11 a.m. - Noon General Session:
Noise & Land Use Controls:
Land to Grow On/ Space to Fly In
- Noon-12:30 p.m. Closing Remarks
Grand Prize Drawing:
Will You Be the Winner?

FYI From the FAA

More on Mode C Transponders

Advances in Air Traffic Control will affect your flights

The history of air traffic control has been a story of technological evolution to match the increasing sophistication of aircraft. Along that line, new rules and regulations in safety have been enacted to help increase trouble free flying.

Mode C Transponder Requirement: The purpose of the requirement for Mode C equipment is to reduce substantially the potential for midair collisions. A Mode C transponder is an electronic device that not only provides an aircraft's position in a horizontal dimension, but also provides the aircraft's altitude to the air traffic controller. Until the 1960's, controllers had to rely solely on pilot reports for the critical "third dimension."

For years, a Mode C transponder was only required for all flight within the boundaries of 9 terminal control areas (TCAs) and for enroute flights above 12,500 feet mean sea level (MSL). In December 1987, the requirement was expanded to include all 23 existing TCAs. TCAs are a type of "positive control" airspace surrounding major airport terminal areas, where special operational and equipment requirements apply.

Then, on July 1, 1989, a new Federal Aviation Administration regulation required a Mode C transponder on all aircraft operating within 30 nautical miles of the primary airport in a TCA. The equipment also is now required for those enroute flights operating at and above 10,000 feet MSL.

The new rule is expected to reduce even further the potential for midair and near midair collisions in congested airspace by giving air traffic controllers all the in-

formation they need to identify and resolve conflicts between aircraft operating in their areas of responsibility.

The additional requirement for carriage of a Mode C transponder

The rule is expected to reduce even further the potential for midair and near midair collisions...

was the result of congressional mandates stemming from the August 1986 midair collision over Los Angeles and concerns about near midair collisions as well as recommendations from the National Transportation Safety Board and an FAA task force that reviewed TCAs nationwide.

Rationale: It might be difficult for some to appreciate the purpose of the new requirement without an understanding of an air traffic controllers responsibilities in a busy terminal radar environment.

At a typical radar facility, each air traffic control position displays dozens of blips, many of which represent aircraft operating under visual flight rules (VFR) and thus not normally under air traffic control. If such aircraft do not have a Mode C transponder, the controller will not know their altitudes and cannot properly assess the threat they pose to aircraft under air traffic control. The controller must treat each such aircraft as a possible conflict—even though the unknown aircraft may be well above or below the possible conflict situation.

This keeps controllers tied up

in a radio communications asking pilots to report their altitude and providing pilots with traffic advisories. It wastes pilot and controller time and diverts their attention from other duties such as planning safer and more efficient operation.

Added Safety Benefits: First, the Mode C transponder automatically triggers the radar terminal system at the TCA airport to provide automatic conflict alerts and low-altitude alert warnings to controllers, who in turn, relay the information directly to the pilots involved. The so-called Mode C "Intruder Alert" software program has been implemented in the automatic enroute airspace system and eventually will be added to the terminal radar systems as well.

Secondly, the Mode C transponder provides critical information to aircraft equipped with an airborne collision avoidance system, called Traffic Alert and Collision Avoidance Systems (TCAS).

With a signal from a Mode C (or Mode S) transponder, a TCAS system can assimilate the data and provide the flight crew with a collision risk assessment, and if necessary a conflict resolution. Without the critical altitude component, a transponder can provide only range and azimuth information.

Essentially, the Mode C requirement is just another step in an evolutionary process to ensure the U.S. air traffic control system remains the safest and most efficient in the world. With air traffic projected to increase at a brisk, steady clip through the turn of the century, it is a significant and needed step in the right direction.



**SOUTH CAROLINA
AERONAUTICS COMMISSION**

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This Month...

Inside Palmetto Aviation

- Damaged SC Airports Get Top Priority
- New Commissioners Appointed
- Rocky Mountain Helicopters New FBO

... and much, much more!

Baffled by Baffles?

Baffles are an integral part of every air-cooled engine, but they are most often over-looked, according to Neil Baker in aircraft maintenance of the South Carolina Aeronautics Commission.

"Baffles are a very over looked item on your engine," he said. "Every air cooled cylinder needs air to cool it. Without your baffles properly installed, you could be losing up to 40 percent of the needed cooling airflow."

Baker said that "damaged baffles may raise the cylinder head temperatures, then your oil temp

increases and just anything associated with the temperature of the engine is increased which will possibly lead to damaged cylinders."

"We have seen a decrease in cylinders head temperatures as much as 50 degrees after a rebaffling job," added the state aircraft mechanic.

If your baffles are bent, battered, torn or just plain missing, take your aircraft to a local A&P mechanic for repairs.

"It may take as long as four hours to repair or replace damaged baffles," according to Baker, but

that is a small price to pay to keep your aircraft in good flying condition.

Most baffles should point up or towards the incoming airflow when properly installed. The baffles direct the airflow through the engine to cool it correctly.

After baffles are repaired, care should be taken when reinstalling the cowling so baffling remains in its proper direction.

Baffling--a simple job that can reap large benefits in the care and maintenance of your aircraft.

Don't be baffled anymore.

This publication is printed and distributed by the South Carolina Aeronautics Commission in the interest of aviation safety and to foster growth of responsible aviation in the state. The viewpoints expressed in articles credited to specific sources are presented as the viewpoints of those writers and do not necessarily reflect the opinion of the South Carolina Aeronautics Commission.